New York City Independent Budget Office



September 2013

Looking Ahead:

Is the City Making Way for More Office Space Than Needed Over the Next 30 Years?

Summary

One concern raised in response to the Bloomberg Administration's plan for rezoning East Midtown is whether this initiative will foster an over-supply of office space in the coming decades. Some public officials and civic leaders point to efforts across the city, from Jamaica to Downtown Brooklyn to encourage the spread of office development, and question whether East Midtown rezoning will jeopardize public investments in large-scale redevelopment at Hudson Yards and the World Trade Center.

Because of such concerns, at the request of Council Member Daniel Garodnick, IBO has updated its 2004 projections of office needs in the city. In this new report IBO projects growth in office-using employment over 30 years to 2040 and compares it with an updated estimate of new commercial space already being developed as well as what may be developed in the coming years at Hudson Yards, the World Trade Center, Downtown Brooklyn, Atlantic Yards, and other locations in the city.

There is substantial uncertainty inherent in making such projections, especially over three decades. Small variations in factors such as job-growth estimates and the amount of space that firms lease per worker, along with the extent to which older office buildings are converted to residential use can lead to large differences in expected needs for office space. A recent shift in the industry sectors driving office employment growth also adds uncertainty. While in the past the business services and financial sectors have led the growth in office employment, now it is industries with different needs and work styles: media, technology, and design. Due to these factors, IBO has developed three scenarios to estimate the need for office space over the next 30 years. Based on our midrange scenario:

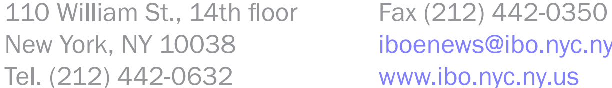
- We forecast a need for about 52 million square feet of office space through 2040.
- This projected need is sufficient to support the full buildout of Hudson Yards, the World Trade Center, and other sites throughout the city, including East Midtown.

Under the scenario in which jobs grow slowly and less space is needed per worker, the need for office space could be as low as 30 million square feet. Conversely, faster job growth and more space per worker could boost need to 87 million square feet—roughly in line with the estimates cited by the Bloomberg Administration.

Given the uncertainty surrounding estimates of the need for office-using space, the report also considers the risks tied to funding pedestrian, subway, and other improvements in East Midtown with revenue generated by the sale of additional development rights.



New York City
Independent Budget Office
Ronnie Lowenstein, Director


110 William St., 14th floor
New York, NY 10038
Tel. (212) 442-0632

Fax (212) 442-0350
iboenews@ibo.nyc.ny.us
www.ibo.nyc.ny.us





Introduction

Over the past several months the Department of City Planning has outlined its proposed East Midtown rezoning initiative in a series of public reports and presentations. The new zoning regulations would encourage the redevelopment of the neighborhood's existing building stock by allowing developers to build taller and denser than currently permitted. The proposal officially began the Uniform Land Use Review Procedure (ULURP) process on April 22 of this year, which includes reviews by the local community boards, the Manhattan Borough President, the City Planning Commission and, ultimately, the City Council.

The city planning department and the supporters of the rezoning proposal have argued that the office buildings in East Midtown, and particularly the blocks surrounding Grand Central, are outdated, inefficient and ill-suited to the needs of modern office tenants. This is due, in part, to current zoning regulations that discourage landlords in East Midtown from replacing their inefficient buildings with modern structures. Many buildings in the area, particularly those built before 1961, are larger than could be built under the current zoning code.

As a result, the Grand Central submarket has seen little new development over the last several decades, and the amount of new office stock added to the area has fallen well short of what was built before the current zoning rules were put in place in the early 1980s. Supporters of rezoning argue that unless the zoning code is revised, East Midtown—and, by extension, New York City—will be less competitive on the global stage as compared with peer cities like Chicago, London, and Tokyo.

The proposal includes several provisions intended to benefit the area's existing workers, residents, and visitors. The new zoning text includes provisions in which developers could purchase additional density from a District Improvement Fund in order to reach the maximum development potential of their sites. The money raised by the fund would be used to pay for capital improvements to the area's pedestrian and transportation infrastructure. New buildings would also be required to meet a higher energy efficiency standard than required at sites elsewhere in the city.

Based on estimates in the final scope for the project's Environmental Impact Statement, the rezoning could lead to 13.5 million square feet of new development throughout East Midtown, including between 8.2 million square feet and 10.3 million square feet of office space, of which as much as 3.7 million would be net new space.

Some elected officials and advocates, however, are concerned the rezoning is proceeding too quickly and that more time is needed to understand the impact these new buildings will have on the public realm. Given that crowded conditions already exist in the area, they contend that the capital improvements to the area's pedestrian and transit network should precede development of new commercial space and question whether payments by developers into a District Improvement Fund will be too volatile a funding source for the needed improvements. Some are concerned that the rezoning will target historic buildings for redevelopment. Still others have questioned whether the rezoning will draw tenants and development interest away from other active redevelopment areas, including the World Trade Center, Downtown Brooklyn, and Hudson Yards, where the city is spending $3 billion to spur the creation of a new central business district with more than 25 million square feet of office space. In response to this last concern, developers will not be able to receive building permits for projects approved under the new zoning rules until July 2017.

In this report, requested by Council Member Daniel Garodnick, IBO updates its 2004 report, "Supply & Demand: City and State May Be Planning Too Much Office Space," to look at the future of the office market in New York City. That report forecast employment growth among office-using industries from 2010 through 2035, translated those gains into demand for new office space, and compared that estimate with the amount of potential office development capacity proposed in several rezonings that were pending at that time. In this update, IBO projects citywide growth through 2040 and compares the forecast demand with an updated estimate of development capacity that includes Hudson Yards, the World Trade Center, Long Island City, Downtown Brooklyn, Atlantic Yards, and the proposed East Midtown rezoning.[1]

Forecasting Demand for Office Space

As discussed in IBO's 2004 report, forecasting long-term demand for office space is highly sensitive to both projected employment growth and to how intensively firms use office space. Those factors are, in turn, a product of the broader economy, changes in the city's local economic conditions, tax incentives, inter- and intra-regional competition, technological innovations, changes in workplace design, as well as other developments that we cannot yet envision.

East Midtown District Improvement Fund

The zoning proposal acknowledges that increasing density in the area will add to already overburdened transportation and pedestrian networks. Foregoing the option to use the city's general capital budget to finance improvements to help mitigate the pressure, the proposed rezoning of East Midtown includes a financing mechanism known as the District Improvement Fund (DIF) to raise revenue from the sale of additional development rights. The fund is similar to the one that the city employed when it rezoned the Far West Side of Manhattan. Under the current proposal, developers can choose to pay a bonus for each incremental square foot of space they build over what is allowed as-of-right, up to a maximum amount of space that varies based on a lot's location. After acquiring a minimum amount of floor area from the DIF, developers can also add density by purchasing unused development rights from neighborhood landmarks, including Grand Central Terminal and St. Patrick's Cathedral, instead of buying air rights from the DIF.

The city has proposed a price of $250 for each square foot of commercial development rights acquired through the District Improvement Fund. (The price for residential space will be determined at a future date.) The price will be adjusted annually based on the percent change in the Mayor's Office of Management and Budget's estimate of the average asking rent for office space in Midtown Manhattan. (Since developers cannot secure building permits based on the new zoning regulations until 2017, it is unclear whether the DIF price will rise between the rezoning's enactment date and 2017, when developers will be eligible to receive building permits, or whether it will start at $250 at that time.)

Based on this pricing structure, the city estimates that the DIF will raise between $605 million and $750 million over 20 years (present value). Even though the city planning department estimates that there are only 19 probable development sites that will take advantage of the rezoning, the department has not provided a site-by-site breakdown of expected DIF revenue. It has estimated that the range of contributions could vary from $30 million to $100 million per site. It also has not estimated the timing or pace at which it expects to collect DIF revenue or the extent to which allowing owners of landmarks to sell unused development rights might divert revenue from the District Improvement Fund.

The city's proposal calls for the creation of a District Improvement Fund Committee, which will be tasked with deciding how and where DIF revenue is spent. In the most recent version of the East Midtown zoning amendment, the DIF Committee will identify capital projects in or adjacent to East Midtown that are intended to improve the neighborhood's pedestrian networks; build new open space; or mitigate the impacts of new development projects. The committee would include five members, all of whom will be appointed by the Mayor, and will be headed by the Chair of the City Planning Commission. The committee would include fewer points of view than the boards of other quasi-public local development corporations. The board of the Hudson Yards Development Corporation, for example, includes eight mayoral appointees, plus the Comptroller, the Speaker of the City Council, the Council Member representing the neighborhood, the Manhattan Borough President, and the Chair of Community Board 4. As IBO completed this report, the city's planning department indicated that it was open to considering changes in the composition of the DIF Committee and the per square foot price of development rights purchased through the fund.

The Final Scope of Work for the project's Environmental Impact Statement recommends that the committee prioritize the renovation of subway platforms and mezzanines in Grand Central station and the conversion of Vanderbilt Avenue into a pedestrian plaza. Depending on the availability of funding, future projects could include streetscape and sidewalk improvements along Madison Avenue, Lexington Avenue, and East 53rd Street, as well as improvements to the 5th Avenue/53rd Street and Lexington Avenue/53rd Street subway stations. The city planning and transportation departments recently hired a consultant to write an "East Midtown Public Realm Vision Plan," which the agencies expect will propose specific capital projects in greater detail. At the time of this report, city planning has not publicly released the estimated cost of these projects. The ultimate decision of which projects to fund and the order in which they will be funded would be left to the discretion of the DIF Committee.

Many of these projects would address concerns about congestion in Midtown that date back to at least the 1970s. The "Midtown Development" report, released

(continued on page 4)

by the Department of City Planning in 1981 in support of the proposal to create the Special Midtown District, highlighted the need for significant investments to ease overcrowding in East Midtown. Among the proposed projects were recommendations to widen the Madison and Lexington Avenues sidewalks to at least 17 feet; improve pedestrian circulation along East 53rd Street and Vanderbilt Avenue; and relieve congestion above and below ground at Grand Central. The projects included in the city's current DIF proposal tackle these same issues, which have largely gone unaddressed in the three decades since the Special Midtown District was approved. The special district, which was enacted in 1982, first established the zoning restrictions in East Midtown that the Mayor is currently proposing to revise.[2] In a recent opinion article, Mayor Bloomberg suggested that the city might pay for at least some of the East Midtown capital improvements using city capital funds and use future DIF revenue to reimburse the city over time. Such an agreement between the city and the DIF Committee would most likely be structured similarly to the arrangement between the city and the Hudson Yards Development Corporation and the Hudson Yards Infrastructure Corporation. Experience with the Hudson Yards equivalent of the DIF (known as a DIB, or district improvement fund bonus), however, has shown that such funding is that project's most volatile source of revenue. Annual DIB revenue in Hudson Yards has ranged from as much as $58 million in fiscal year 2007 to as little as $0 in fiscal year 2010. The city has not said whether all of the envisioned capital projects will proceed if DIF revenue falls short of the total of the projected costs.

Making assumptions about employment and the use of office space, IBO estimates that roughly 52 million square feet of office space would need to be developed to meet projected citywide employment growth through 2040. However, this long-term forecast of demand comes with a large margin of error. Depending on the rate of employment growth and space utilization trends, by 2040 demand for new space could be as little as 30 million square feet or as much as 87 million square feet.

Employment Forecast. Historical trends in employment in the office-using industries are used to generate an employment forecast through 2040. IBO's definition of office-using employment includes the three sectors that represent the largest share of demand for office space in the city: information, financial services, and professional and business services.[3] Estimates of annual employment by industry from 1970 on are provided by Moody's Analytics. IBO added its own employment estimate for 1969, a cyclical peak, which was not available from Moody's. To estimate office-using employment, we looked at trends in total employment in New York City and employment in the city's finance, insurance, and real estate industry. Both of these series peaked in 1969, declining 1.37 percent and 1.34 percent, respectively, from 1969 to 1970. IBO assumes a comparable, 1.35 percent, decline in office-using employment for the year.

To get a sense of how the demand for office space has grown over time, we calculated the long-term, peak-to-peak employment growth rates for the combined information, financial services, and professional and business services industries in New York City since 1969. Average annual growth rates are highly dependent on the beginning and end years selected, and peak-to-peak trends best capture the need for new office development as the city's employment base grows across multiple business cycles. By using peak-to-peak employment growth rates to model growth in office-using industries, we are assuming that employment growth during recoveries will eventually be offset—at least in part—by job losses during recessions. The office-using industries' peak-to-peak employment growth rates have fallen over the past three business cycles, slowing from increases averaging 0.63 percent annually from 1969 through 1988 to declines averaging 0.24 percent a year during the most recent cycle.

Overall, citywide office-using employment is roughly at the same level it was more than a decade ago. As of

Growth in Office-Using Employment Slowed Over Time

Peak-to-Peak Economic Cycles	Average Annual Growth Rate
1969-1988	0.63%
1988-2000	0.55%
2000-2008	-0.24%
1969-2008	0.43%

SOURCES: Moody's Analytics; Bureau of Labor Statistics, Current Employment Statistics
NOTES: Employment totals are estimated by Moody's Analytics to bridge between multiple industrial classification systems and data sources. Employment for 1969 was estimated by IBO based on data from the US Bureau of Labor Statistics' Current Employment Statistics data.
Independent Budget Office



SOURCES: Moody's Analytics; U.S. Bureau of Labor Statistics, Current Employment Statistics; National Bureau of Economic Research
NOTE: Recessions include any year in which the national economy was in recession for at least one quarter, as defined by the National Bureau of Economic Research.

Independent Budget Office

the end of 2012, there were nearly 1.25 million workers employed in the three office-using industries. Collectively, the three sectors that make up IBO's definition of office-using employment have recovered all of the jobs lost since 2008, though they have yet to surpass their previous peak in 2000. There are a number of possible explanations for this continued weakness, including: the increasing use of technology; the near-shoring, off-shoring, and/or elimination of back-office occupations; and structural shifts in office-using industries in the city, particularly in the financial services sector.

Based on these historical trends, IBO projected office-using employment in New York City through 2040. We modeled three scenarios based on different annual growth rates derived from our analysis of long-term, peak-to-peak employment growth:

- 0.75 percent (an optimistic scenario that reflects the city's strong job growth since the end of the 2009 recession);
- 0.5 percent (roughly the long-term growth rate between 1969 and 2008); and
- 0.25 percent (a pessimistic scenario).

These various growth rates were then applied to the 2012 office-using employment base. Using 2012 as the base year underestimates future employment because we are applying our long-term growth rates to a point in time in the middle of an economic expansion, rather than at the cycle's peak. This is preferable to starting our forecast from the 2008 peak, which would have omitted data on employment trends from 2008 through 2012. Moreover, 2012 office-using employment has surpassed its 2008 peak.

Based on these assumptions, New York City would add between 91,000 new jobs in the more pessimistic case and 291,000 office jobs in the more optimistic scenario. The midrange scenario of 0.5 percent annual growth, which is closest to the long-term annual growth rate since 1969, would result in 187,000 new office jobs by 2040. The uncertainty in the forecast increases over time. Through 2020, the difference between the optimistic and pessimistic scenarios is 52,000 jobs. By 2040, the difference grows to more than 200,000 jobs.

Demand Forecast. These employment growth scenarios can be used to estimate the demand for new office space. Over time, employment growth will reduce the overall vacancy rate enough to justify the construction of new buildings. By multiplying the total employment increase by an estimate of the amount of space required per worker, we can estimate the total amount of new development needed to accommodate this projected growth.

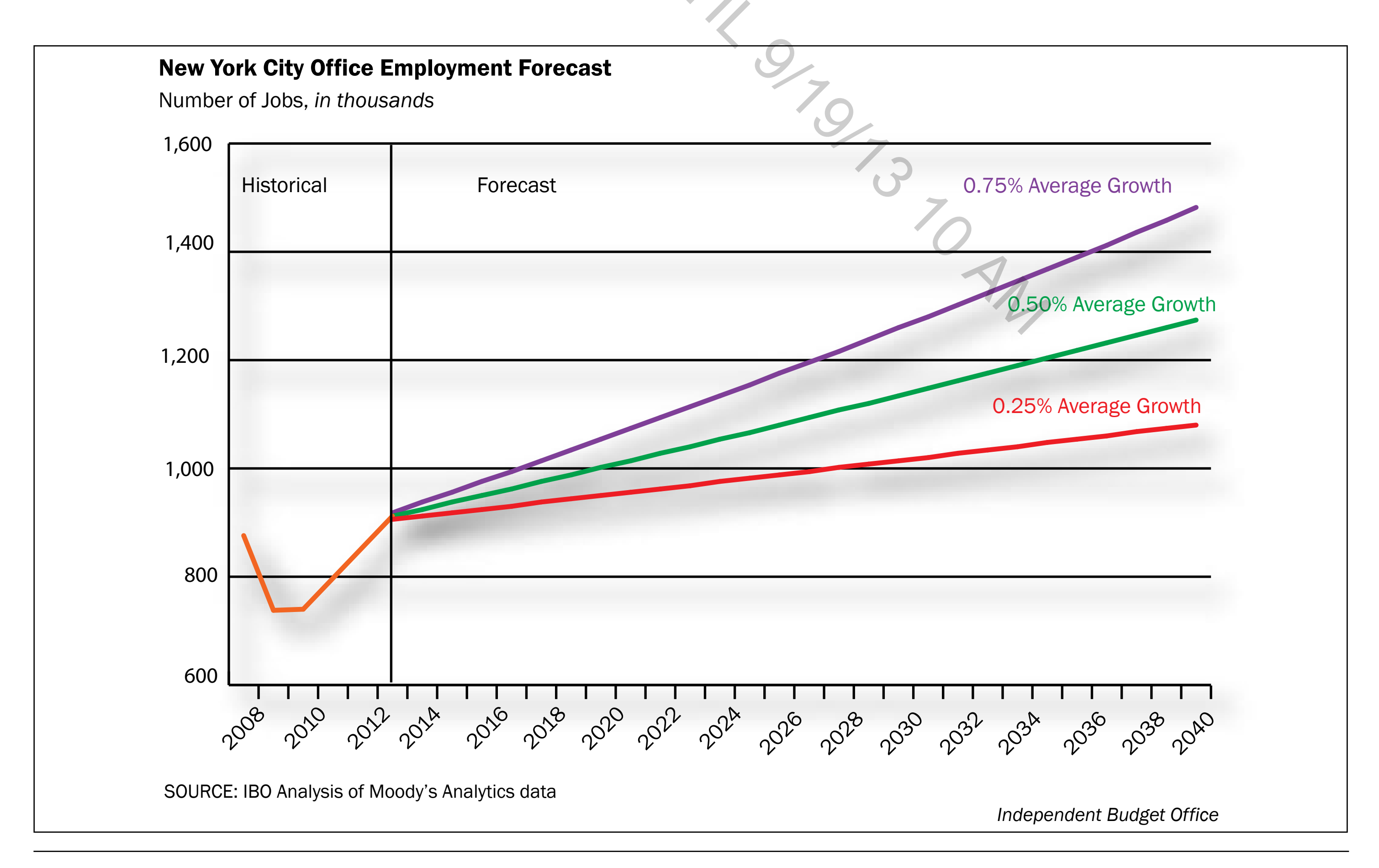
Like employment growth rates, space utilization rates have varied over time. Traditionally, office designers have estimated that workers require 250 square feet of space per person. The amount of office space needed for each worker, however, has steadily fallen in recent years for a variety of reasons, including the decreasing need for file storage and server space, the increasing popularity of open floor plans, a renewed focus on controlling costs as firms in New York compete in a worldwide market for financial and business services, and the rise of telecommuting and shared workspaces. Several commercial real estate experts have predicted that firms could allocate as little as 100 square feet per worker by the end of the decade.[4]

To account for the range of potential firm decisions, IBO applied four utilization rates to each of the employment growth scenarios discussed above. The utilization rates vary from a high of 250 square feet per worker to a low of 175 square feet per worker; the latter figure is roughly in line with what firms currently allocate per worker when leasing space.

The model also allows the overall market to return to a natural vacancy rate of 8 percent, the point at which supply and demand are balanced and lease rates are stable. According to Cushman & Wakefield's final 2012 market report, the vacancy rate in Manhattan was 9.4 percent, meaning that the market would need to absorb 5.5 million square feet of space before new construction would be considered viable. We have chosen to focus on vacancy rates in Manhattan's central business districts since there appears to be little demand for new office construction in other areas of the city.

Other Factors Affecting Long-Term Demand. Other factors that might affect the long-term demand include conversion or demolition of existing office buildings and changes in how office space is used. It is difficult to estimate the total amount of office space that has been converted to other uses in recent years. It is likely that most conversion activity over the past two decades resulted from the now-expired 421-g incentive program, which encouraged property owners to convert office buildings in Lower Manhattan into apartments. From 1995 through 2006, the years in which the exemption was available, developers converted nearly 12.8 million square feet of offices into residential buildings.

Conversion activity has slowed in the years since then, but it appears that developers are continuing to convert older office buildings even in the absence of a dedicated tax incentive. Notable projects include apartment conversions at 116 John Street and 114 East 32nd Street in Manhattan and 25 Washington Street in Brooklyn; a retail conversion at 3



West 57th Street; and hotel conversions at 140 Washington Street, 960 6th Avenue, and 1164 Broadway. Based on media reports, current and future conversion projects include Sony's headquarters at 550 Madison Avenue, 346 Broadway, the former Emigrant Savings Bank at 49-51 Chambers Street, the upper floors of the Woolworth Building, and AIG's former headquarters at 70 Pine Street.

For the purposes of this analysis, IBO has assumed that by 2040, owners of office properties in Manhattan's central business districts and in Downtown Brooklyn, neighborhoods that feature both strong residential demand and a preponderance of the city's oldest office buildings, will convert or demolish 10 percent of those neighborhoods' prewar office space and 5 percent of its space built from 1946 through 1961. This amounts to a total of 19.9 million square feet in conversions and demolitions, or an average of 738,000 square feet per year. If employment growth remains steady, the market would need to replace the space that is lost.

Some of the demand created by conversions and demolitions might be offset if businesses decide to shrink their office footprints over time. If the city's existing office-using industries, as defined in this report, were to collectively reduce their space utilization rates by as little as 6 percent—the equivalent of going from 250 square feet per worker to 234 square feet per worker—the additional vacant space would more than offset all of the extra demand generated by conversions and demolitions. Given the speculative nature of how and when businesses might reconfigure their existing office space, our model does not consider potential reductions in the amount of space currently occupied by the existing office workforce.

In the midrange estimate, in which employment grows at roughly the historical average growth rate of 0.5 percent each year and companies provide an average of 200 square feet per worker, we estimate that there will be demand for 52 million square feet of space, a figure which includes the need to replace 20 million square feet of space lost to conversions and demolitions. However, the range of scenarios puts the demand for office space through 2040 resulting from office-using employment growth as high as 87 million square feet or as low as 30 million square feet.

The considerable uncertainty in these results shows how sensitive the long-term demand for office space is to small changes in assumptions about the employment growth rate or the amount of space that businesses allocate per worker. If space utilization rates and conversion activity are held constant, reducing the average annual growth rate from 0.75 percent growth to 0.5 percent growth would cut the total demand for office space by about 30 percent. If office employment only rises by an average of 0.25 percent, demand would fall by as much as 57 percent as compared with the 0.75 percent growth scenario.

Office Employment and Space Requirements Through 2040

	Average Annual Growth Rate		
	0.75%	**0.50%**	**0.25%**
Office Employment (thousands of jobs)			
Level in 2040	1,540.5	1,437.0	1,340.2
Gain from 2012-2040	290.8	187.3	90.5
Space Required Assuming 8% Vacancy Rate, 19.9 msf in Conversions (millions of square feet)			
250 square feet per job	87.1	61.3	37.1
225 square feet per job	79.9	56.6	34.8
200 square feet per job	72.6	51.9	32.5
175 square feet per job	65.3	47.2	30.3

SOURCE: Moody's Analytics

Independent Budget Office

Similar reductions would occur if companies decide to allocate less space per worker. Holding employment growth and conversions constant, every 25 square foot reduction in the space needed per worker decreases the total demand for net new office space by 6 percent to 10 percent.

The 2011 Cushman & Wakefield study projected that the city would need an additional 92 million square feet of office space by 2040. While that amount is similar to IBO's most optimistic scenario, it is nearly 80 percent higher than our midrange estimate. That demand estimate could prove to be overly optimistic should employment growth prove sluggish or if employers continue to shrink the amount of space they allocate per worker.

Forecasting Supply of New Office Development

Given our forecast of demand for new office space, we now turn our attention to projecting the future supply of office buildings that will be available to meet that demand. IBO considers new buildings currently under construction, office conversion projects and publicly known development sites located throughout the city, as well as new capacity that could be added in East Midtown.

IBO projects that current development capacity is about 44 million square feet, increasing to 48 million if the East Midtown rezoning is approved.

Projects in Construction. There is 4.4 million square feet of office space available to lease in buildings currently under construction. The majority of this space is located in the 1 and 4 World Trade Center buildings, which, when completed, will add to the Downtown market more than 5 million square feet, of which 2.9 million square feet has already been leased. The next largest building is a 1.7 million square foot tower—three-quarters of which has been leased or sold to tenants—that the Related Companies is currently building in Hudson Yards. The remaining buildings are boutique office buildings of less than a million square feet, most of which are less than 500,000 square feet. One current conversion project, located at 1000 Dean Street in the Crown Heights neighborhood of Brooklyn, is transforming a former auto garage and warehouse into shared office space. Though we have only identified projects of at least 100,000 square feet, there are also a number of small office projects under construction in the Soho, Meatpacking, and Far West Chelsea neighborhoods.

Development Sites. There are also a number of potential development sites throughout the city that could accommodate office projects in the future.

In the 2012 Hudson Yards bond offering, Cushman & Wakefield identified 19 locations outside of Hudson Yards that, based on then-current zoning regulations, could potentially accommodate new office buildings.[7] IBO reviewed the current status of these sites. Since the report was published, three of the largest sites—the Hotel Pennsylvania, 701 7th Avenue, and 221-225 West 57th Street—saw their developers opt to build (or preserve) hotel, retail, or residential space rather than office space. A fourth, the Port Authority Bus Terminal, stalled after the authority failed to reach an agreement with its development partner to build a tower over the bus station. Five of the sites are under construction and were included in our list of construction sites. The remaining sites identified by Cushman & Wakefield are in our list of potential development sites, including the stalled project at the bus terminal.

Five other sites have been proposed since the time of the Cushman & Wakefield report: the sites assembled by SL Green at the corner of East 42nd Street and Madison Avenue; 425 Park Avenue; a lumberyard on 9th Avenue and West 15th Street; the conversion of the Domino Sugar Factory in Williamsburg, Brooklyn; and the conversion of the Watchtower properties in DUMBO. Under current zoning, the owners of the two East Midtown sites can rebuild only the amount of office space currently located on those properties. Since neither would add net new square footage, we have excluded them from this analysis.

New Office Construction Primarily in World Trade Center and Hudson Yards
In millions of square feet

Property	Total Size	Available Space
1 World Trade Center	3.0	1.3
4 World Trade Center	2.3	1.1
Hudson Yards South Tower	1.7	0.5
250 West 55th St	0.9	0.4
7 Bryant Park	0.4	0.4
51 Astor Place	0.3	0.3
330 Hudson Street	0.3	0.3
1000 Dean Street	0.1	0.1
TOTAL	**9.0**	**4.4**

NOTE: Only includes projects of at least 100,000 square feet.
Independent Budget Office

Approximately two-thirds of the total potential office capacity is located in the Hudson Yards district. Developers active in the Far West Side are currently seeking tenants and financing for several towers totaling 12.3 million square feet, while an additional 11.3 million square feet of development rights exist elsewhere in the area. The Related Companies has reportedly reached an agreement with Time Warner to occupy at least a portion of its North Tower in the Hudson Yards project.

Outside Hudson Yards, there are approximately 11.2 million square feet of potential net new office development rights in Manhattan. Two of these sites—the Roosevelt Hotel and the Metropolitan Transportation Authority's headquarters—are in the East Midtown area proposed for rezoning; together they can accommodate 1.5 million square feet of new office space under current zoning regulations. Silverstein Properties is seeking tenants for about 5 million square feet of space at the 2 and 3 World Trade Center buildings. The firm is currently building the foundations and street-level podiums at both sites. Its financial backers, including the city and state, have required Silverstein to reach specific office leasing milestones before it can begin building the office towers on each site. According to recent reports, Silverstein has signed a letter of intent with a tenant to lease a portion of 3 World Trade Center.[8]
Two portfolios in Brooklyn—the Domino Sugar Refinery in Williamsburg and the Jehovah's Witnesses' Watchtower

Cushman & Wakefield Office Forecast Methodology

The real estate firm of Cushman & Wakefield published long-term forecasts of Manhattan's office, hotel, residential, and retail markets as part of the city's due diligence for the 2006 and 2012 Hudson Yards bond offerings. The city justified the need for the rezoning of the Far West Side in part based on the gap that the firm found between future demand for office space and available supply under existing zoning regulations.

In its 2012 report, Cushman & Wakefield estimated that office-using employment growth would generate demand for 91.9 million square feet of office space in Manhattan through 2041, including 48.6 million square feet in Midtown, 25.3 million square feet in Hudson Yards and 18 million square feet Downtown. This dramatically exceeded the 43 million square feet of office space that could be accommodated by Manhattan's existing development sites, based on then-current zoning regulations. According to this market analysis, the rezoning of Hudson Yards would capture a significant share of this potentially unmet demand without negatively affecting Manhattan's other commercial districts.

Cushman & Wakefield arrived at its demand estimate based on a regional forecast of the office-using employment developed by Moody's Analytics. The report notes that, after taking into account job gains and losses over multiple recessions, office-using employment in the region would grow at an average annual rate 0.7 percent, while employment in the city would grow at an average annual rate of 0.77 percent through 2041. Cushman & Wakefield then translated employment growth into the regional demand for office space, which was divided among the six regional submarkets, using a series of regression models based on the historical relationship between employment growth and the net absorption of office space dating back to 1986. Their model considers other factors as well, including the destruction of the World Trade Center in 2001 and year-to-year changes in the availability of incentives offered by different local governments, the cost of capital, and each market's share of occupied office space in the region.

Far West Side Home to Most of Manhattan's Remaining Development Sites
In millions of square feet

Site	Net New Space
Announced Hudson Yards Sites	12.3
Potential Hudson Yards Sites	11.3
3 World Trade Center	2.8
2 World Trade Center	2.3
20 Times Square (Port Authority Bus Terminal)	1.5
45 East 45th Street (Roosevelt Hotel)	1.2
Watchtower Properties (Multiple Sites, Brooklyn)	1.2
304-322 Hudson Street (4 Hudson Square)	0.8
708 1st Avenue (Solow Site)	0.9
740 8th Avenue	0.9
292-314 Kent Avenue (Domino Sugar Refinery, Brooklyn)	0.6
341-347 Madison Avenue (MTA Headquarters)	0.3
75 9th Avenue (Chelsea Market)	0.3
61 9th Avenue (Prince Lumber)	0.2
TOTAL	**36.6**

SOURCE: Cushman & Wakefield
NOTE: For development sites in the proposed East Midtown rezoning area, net new development potential reported here is the difference between maximum density allowed under current zoning and the existing gross square footage on those sites. Properties listed include only projects of at least 100,000 square feet of net new office space.
Independent Budget Office

properties in DUMBO—were recently sold to developers that intend to convert at least some of the properties from industrial uses to office space. Together, the two projects could add as much as 1.8 million square feet of new office space.

Additional Capacity in Brooklyn and Queens. The rezonings of Downtown Brooklyn, Atlantic Yards, Long Island City, and Jamaica collectively included the potential for nearly 12 million square feet of office space. These rezoning initiatives reflect the efforts of multiple mayoral administrations to expand the city's central business district into the other boroughs.

In the years since the plans were approved, residential properties have accounted for nearly all new development in those areas, though there remains additional capacity should a market develop for modern office space in the other boroughs. Since 2006, developers have built three new build-to-suit office buildings totaling 1.4 million square feet in Long Island City, though no new projects are proceeding there at the moment.

Since a detailed site-by-site review of these areas was beyond the scope of this paper, IBO instead assumed that one-quarter of the nearly 12 million square feet of development rights created in the rezonings are still unused, which would

translate into as much as 2.9 million square feet of office space that could be built in Brooklyn and Queens.

Citywide Capacity. Including the 4.4 million square feet of office space that is still available in sites currently under construction and the potential for an additional 2.9 million square feet in Brooklyn and Queens, the total amount of new development capacity at known sites under existing zoning regulations is nearly 44 million square feet.

Not all of these sites will ultimately be developed as office buildings. The fact that a site is zoned for office development does not guarantee that its owner will ultimately build new office space, particularly if there is little demand in that location or if there is a "higher and better use" for the land. As noted, the owners of several sites in Downtown Brooklyn and Midtown West have opted to build residential or hotel projects instead of office buildings in locations where the zoning rules allowed either use.

East Midtown Rezoning. The proposed rezoning of East Midtown would come on top of the nearly 44 million square feet that is either currently under construction or could be built in other areas of the city.

The Department of City Planning estimates that East Midtown rezoning would allow from 8.2 million square feet up to 10.3 million square feet of office development over 20 years, of which as much as 3.7 million square feet would be net new space. If the East Midtown rezoning is approved, the development capacity citywide would rise to 47.5 million square feet of office space.[9]

In the aggregate, the rezoning would need to capture only a small share of the citywide demand for office space to be successful. The plan's proposed 3.7 million square feet of net new office space represents only 10 percent of demand in IBO's midrange forecast through 2033 and 7 percent through 2040.

The rezoning's small share of overall demand does not, however, mean that development in East Midtown will happen before or at the expense of projects in Hudson Yards and the World Trade Center. The city's various office submarkets offer tenants different amenities, floor plates, levels of transit accessibility and price points. The proposed East Midtown projects might appeal to a different set of tenants than would be willing to move to the Far West Side or Downtown, and vice versa. Properties in the Hudson Yards financing district and in the World Trade Center also offer tax incentives that are not available to tenants and building owners in East Midtown.

Cushman & Wakefield Projection. The city planning department's justification for the East Midtown proposal relies in part on the office demand estimates that Cushman & Wakefield produced for the 2012 Hudson Yards bond offering. At that time, Cushman & Wakefield projected that demand for new office space in Manhattan would total nearly 92 million square feet over the next 30 years. Even after accounting for the 25 million square feet of space that they predicted could be accommodated in Hudson Yards, Cushman & Wakefield found that there would be a 20 million square foot shortfall between potential demand and what could be met by the market. City planning argues that the 3.7 million square feet of new office space in East Midtown would help to address some of that potential shortfall.

Based on our analysis, it appears that Cushman & Wakefield's estimate may prove to be overly optimistic. Cushman & Wakefield's model is based primarily on the historical relationship between employment growth and the net absorption of office space, dating back to 1986.

By relying on a series of regression models that assume a consistent relationship between employment growth and net absorption, the firm assumes that businesses' demand for office space in the future will respond to changes in economic conditions in much the same way as in the past. In reality, the office market has evolved over time—and continues to evolve—based on the changing needs of tenants. Many of the companies that absorbed the hundreds of millions of square feet built across the region during the 1980s and 1990s now appear to be cutting jobs or reassessing their space needs. Employment among the financial and law firms that filled developments like the World Financial Center in the 1980s and 1990s has been flat since at least 2000, while vacancy rates in suburban markets now approach or exceed 20 percent.[10]

The approach also does not acknowledge the impacts of the ongoing diversification of New York City's economy. In the current recovery, growth among office-using industries has been concentrated in media, technology, advertising, and design, all of which have different real estate needs than the companies in finance, insurance, or legal services that drove earlier expansions in the city. These businesses also occupy less space per worker and employ fewer workers relative to large firms with comparable levels of revenue in other sectors or to large firms in prior decades.

The Cushman & Wakefield model uses an employment forecast from Moody's Analytics that is aggressive based on historical trends. Its average annual growth rate of 0.77 percent is higher than the peak-to-peak average growth rate for office-using employment during any single economic cycle dating back to 1969. Though Cushman & Wakefield notes that this growth is comparable to growth during the recovery from 2003 through 2008, it may overstate average annual growth through multiple cycles of expansion and contraction. While it is possible that the strong employment growth during the current recovery will prove to be sustainable, we consider it unlikely that the office-using job market will outperform its historical average for the next 30 years.

Conclusion

IBO's midrange estimate of demand for office space, 51.9 million square feet through 2040, is close to our estimate of citywide supply, which we expect to rise to 47.5 million square feet after the proposed rezoning of East Midtown. While our forecast is lower than that of Cushman & Wakefield, it nonetheless suggests that there will likely be enough demand over the next 30 years to support the full build out of the World Trade Center, Hudson Yards, and East Midtown, in addition to other sites in Manhattan, Brooklyn, and Queens.

Demand Will Likely Match Supply In Baseline Growth Forecast

IBO Supply Forecast	**Millions of Square Feet**
Under Construction, Not Yet Leased	4.4
Potential Development Sites	36.6
Additional Capacity in Outer Boroughs	2.9
Subtotal, Capacity under Existing Zoning	43.8
Additional Capacity in Proposed Midtown East Rezoning	3.7
TOTAL, Existing and Proposed Capacity	**47.5**
IBO Demand Forecasts	
Baseline Scenario: Growth of 0.5 percent a year, 200 square feet per worker	51.9
Other Scenarios	
Growth of 0.75 percent a year, 250 square feet per worker	87.1
Growth of 0.75 percent a year, 175 square feet per worker	65.3
Growth of 0.5 percent a year, 250 square feet per worker	61.3
Growth of 0.5 percent a year, 175 square feet per worker	47.2
Growth of 0.25 percent a year, 250 square feet per worker	37.1
Growth of 0.25 percent a year, 175 square feet per worker	30.3
Cushman & Wakefield Demand Forecast	
2011 Demand Forecast (Manhattan Only)	92.0

SOURCES: Cushman & Wakefield
NOTE: Totals may not add due to rounding.

Independent Budget Office

The wide range of potential outcomes surrounding our midrange forecast, however, highlights the considerable uncertainty involved in office market forecasting over a 28 year time frame. Our model illustrates how small changes in the rate of growth in office-using employment and the space utilization rate can significantly affect the demand for new office space. Depending on how these rates change over time, demand for office space in 2040 could be as little as 30 million square feet or as much as 87 million square feet. Future shifts in policy and structural change in the economy may also affect the demand for space.

Even if the demand for office space is at the low end of the range of estimates, the city may still have legitimate reasons for wanting to rezone East Midtown. If the neighborhood's existing zoning constraints discourage landlords from reinvesting in the Grand Central area, then the rezoning could help satisfy a pent-up demand for new office space in the area. The additional supply could also make office rents more affordable citywide.

The District Improvement Fund plan calls for the city to sell incremental development rights and to spend the proceeds on pedestrian and subway improvements in East Midtown. We have not taken a position on the merits of these capital projects. The uncertainty in our office market forecast, however, suggests that funding capital projects with DIF revenue is not a risk-free proposition. If DIF funds are used on a pay-as-you-go basis, the plan would make high-priority capital projects dependent on a volatile revenue stream that offers little certainty about how much and on what schedule money will be available. If the funds are used to reimburse upfront investments, the city could be responsible for debt service payments on the improvements for an unforeseeable period of time.

This report prepared by Sean Campion

Endnotes

[1]In both the 2004 report and the current update, the terms “demand” and “supply” simply refer to a quantity of space, regardless of price.
[2]The “Midtown Development” report is available on the city planning Web site here: http://www.nyc.gov/html/dcp/pdf/history_project/midtown_development.pdf. Other studies on the Special Midtown District proposal can be found on the department’s History Project page: http://www.nyc.gov/html/dcp/html/history_project/history_project_east_midtown.shtml
[3]Data on employment is from Moody’s Analytics’ employment database, which covers major industry sectors from 1970 through 2012. The sectors included in our definition of office-using employment roughly correspond to the following two-digit NAICS sectors: Information (51), Finance and Insurance (52), Real Estate Rental and Leasing (53), Professional, Scientific and Technical Services (54), Management of Companies and Enterprises (55) and Administrative and Support Services (56). Moody’s data bridges between the current NAICS system and the previous classification systems, dating back to 1970.
These industries are surrogates for office-using employment. Not all jobs in finance, information, or professional services are located in offices. Conversely, the definition does not capture the share of workers in other industries who work in offices. For example, the corporate headquarters of a retail company located in New York City contributes to the demand for office space, even though it is classified in the retail sector.
[4]See: http://www.costar.com/News/Article/Changing-Office-Trends-Hold-Major-Implications-for-Future-Office-Demand/146580 and http://www.nytimes.com/2013/02/19/business/hotels-carve-out-work-spaces-rented-hourly.html?pagewanted=2&_r=0.
[5]Estimates for New York City’s natural office vacancy rate have varied in different studies, though most studies have found that the natural rate in cities with significant barriers to development, like New York, Boston, or San Francisco, is around 7 percent to 8 percent. See: http://www.phil.frb.org/research-and-data/publications/business-review/1989/brmj89tc.pdf or http://www.frbsf.org/economic-research/publications/economic-letter/2001/october/natural-vacancy-rates-in-commercial-real-estate-markets/.
[6]The vacancy rate is for Class A, B, and C office buildings in Manhattan’s Midtown, Midtown South and Downtown office markets.
[7]Cushman & Wakefield counted 2, 3, and 5 World Trade Center buildings as one development site. It did not list 1 or 4 World Trade Center, since those buildings were already under construction at the time of that report.
[8]See http://www.nypost.com/p/news/business/groupm_signs_huge_year_lease_at_fOVuM7Z3GKICuUUL1x9kVI
[9]City planning has not estimated the amount of net new office space that could be built under on the revised zoning text amendment, which allows developers to devote as much as 20 percent of the floor area of office buildings to residential space or hotels. The 3.7 million square foot estimate is based on data from the original draft Environmental Impact Statement.
[10]Partly in response to these trends, the current owner of the World Financial Center recently rebranded the development as Brookfield Place in order to attract tenants besides financial firms.

Receive notiffication of IBO’s free reports by e-mail
Facebook
Twitter
RSS